



## HDMI 1.3 with 3D Extender over Signal CAT5/CAT6 Cable



Model #: HDM-C5-3X-SET

**HD ready 1080p** **HDMI** **HDCP** **7.1CH Audio** **X.V.Color**

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## Section 1: Getting Started

### 1.1 Important Safeguards

Please read all of these instructions carefully before you use the device. Save this manual for future reference.

#### What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - Repair or attempted repair by anyone not authorized by us.
  - Any damage of the product due to shipment.
  - Removal or installation of the product.
  - Causes external to the product, such as electric power fluctuation or failure.
  - Use of supplies or parts not meeting our specifications.
  - Normal wear and tear.
  - Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

### 1.2 Safety Instructions

The HDM-C5-3X-SET, HDMI 1.3a Extender with 3D over Signal CAT5 has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the HDM-C5-3X-SET should be used with care. Read the following safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Do not dismantle the housing or modify the module.
- Dismantling the housing or modifying the module may result in electrical shock or burn.
- Refer all servicing to qualified service personnel.
- Do not attempt to service this product yourself as opening or removing housing may expose you to dangerous voltage or other hazards
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Have the module checked by a qualified service engineer before using it again.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

## 1.3 Regulatory Notices Federal Communications Commission (FCC)

This equipment has been tested and found to comply with Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

## 1.4 Introduction

The Avenview **HDM-C5-3X-SET, HDMI 1.3a Extender with 3D over Single CAT5 / CAT6** boosts up your video/audio transmission distance up to 60m (200ft) in HDTV 1080i format, 40m (130ft) in HDTV 1080p format, and 20m (65ft) in HDTV 1080p with 36-bit color depth. HDM-C5-3X-SET also supports the most advanced 3D video format compliant with HDMI 1.4 specification and therefore guarantees the highest 3D video compatibility on the market. With only one cost effective Cat.5/5e/6 cable, users can readily extend HDTV sources from DVD players, Blu-ray Disc player, PS3, PC, and any other kinds of sources compliant with TMDS to distant display monitors including HDMI or DVI enabled TV sets or LCD PC monitors. With the advanced design for the latest HDMI technology, deep color video, DTS-HD or Dolby TrueHD audio, and HDCP supports and compatibility are all further insured. This flexibility makes HDCP compliant DVD players or PS3 transmit utmost high quality video and audio with a greater distance at the minimal cost, when integrating several components apart

The HDM-C5-3X-SET consists of Transmitter (HDM-C5-3X-S) and Receiver (HDM-C5-3X-R). The Transmitter (HDM-C5-3X-S) captures the input HDMI/DVI signals and carry the signals through one RJ-45 connector into one cost effective CAT-5/5e/6 LAN cable. The Receiver (HDM-C5-3X-R) equalizes the sent TMDS multimedia data. The transmission distance between the sending and receiving units can be up to 60m (200ft) under HD (720p/1080i) or 40m (130ft) under Full HD (1080p). With an 8-level equalization control knob on the receiving unit, users can adjust the equalization strength to the received TMDS signals accordingly, and therefore optimize the transmission distance between source and destination.

- H DMI 1.3a compliant [3D video]
- Extend the transmission up to 60m (200ft) from the HDMI source at HD 1080i or 720p 24-bit
- Extend the transmission up to 40m (130ft) from the HDMI source at Full HD 1080p 24-bit
- Extend the transmission up to 20m (65ft) from the HDMI source at Full HD 1080p 36-bit
- HDCP 1.1 compliant
- Minimize the cable skew by adjustable 8-level equalization control
- Pure unaltered uncompressed 7.1ch digital HDMI over Cat.5/5e/6 cable transmission
- DTS-HD and Dolby True HD high bit rate audio support
- Allows cascading
- Wall mounting housing design for easy and robust installation
- Perfectly integrated with other HDMI over CAT5 series products

## 1.5 Package Contents

Before you start the installation of the converter, please check the package contents.

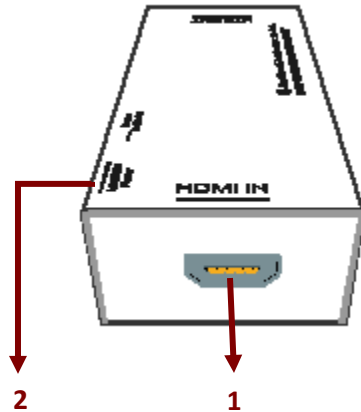
- HDM-C5-3X-S x 1
- HDM-C5-3X-R x 1
- Mini USB to USB Adapter x 2
- User's Manual x 1

## 1.6 Before Installation

- Put the product in an even and stable location. If the product falls down or drops, it may cause an injury or malfunction.
- Don't place the product in too high temperature (over 50°C), too low temperature (under 0°C) or high humidity.
- Use the DC power adapter with correct specifications. If inappropriate power supply is used then it may cause a fire.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.

## 1.7 Panel Description

### FRONT PANEL (Transmitter, HDM-C5-3X-S)

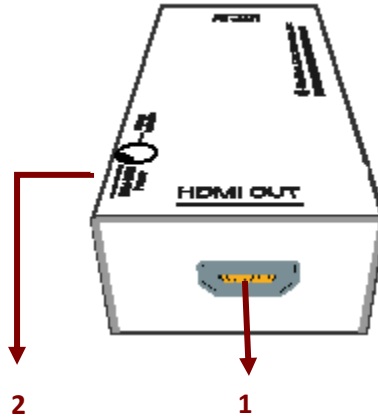


|               |                       |
|---------------|-----------------------|
| 1. HDMI Input | 2. Mini USB Connector |
|---------------|-----------------------|

| DIP Switch Under Transmitter |               |                                  |       |                                   |
|------------------------------|---------------|----------------------------------|-------|-----------------------------------|
| 0                            | VIDEO         | Locks to Full HD 1080p 24-bit    | AUDIO | Supports up to 7.1 Channel Output |
| 1                            | VIDEO         | Locks to Full HD 1080p 24-bit    | AUDIO | Locks to Stereo Audio Output      |
| 2                            | VIDEO         | up to Full HD 1080p 36-bit       | AUDIO | Supports up to 7.1 Channel Output |
| 3                            | VIDEO         | up to Full HD 1080p 36-bit       | AUDIO | Locks to Stereo Audio Output      |
| 4                            | VIDEO         | Locks to HD 720p or 1080i 24-bit | AUDIO | Supports up to 7.1 Channel Output |
| 5                            | VIDEO         | Locks to HD 720p or 1080i 24-bit | AUDIO | Locks to Stereo Audio Output      |
| 6                            | VIDEO         | up to 3D Full HD 1080p 36-bit    | AUDIO | Locks to Stereo Audio Output      |
| 7                            | EDID Learning | Learns EDID from Display         |       |                                   |

## REAR PANEL (Transmitter, HDM-C5-3X-S)

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1. HDMI OUT

2. Mini USB Connector

## DIP Switch HDM-C5-3X-R (Receiver)

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### Rotary control:

Adjust the 8-level equalization control to the received HDMI signals. The HDMI signal level varies from 0 (strongest) to 7 (weakest) for respective transmission length from longest possible range to short distance. Please adjust the signal level from 7 to 0 and stop turning the rotary switch whenever the audio/video is playing normally. Inappropriate signal level setting may cause overpowering issue that would shorten the product life significantly!

*If a flickering or a blinking image is seen, try to adjust the rotational switch to improve the cable skew. 0 stands for the strongest EQ while 7 stands for the weakest. Try adjusting the EQ from 7 to 0*



## 1.8 Installation

To setup Avenview HDM-C5-3X-SET follow these steps for connecting to a device:

1. Connect your HDMI/DVI source (such as a Blu-ray Disc player) to Transmitter (HDM-C5-3X-S).
2. Connect your HDMI/DVI display (such as a LCD TV) to the receiving unit HDM-C5-3X-R.
3. Connect your CAT-5/5e/6 LAN cable between the transmitting and receiving units.
4. Make sure CAT-5/5e/6 LAN cable is tightly connected and not loose.
5. Plug in 5V DC power cord to the power jack of the receiving unit HDM-C5-3X-R.
6. Plug in 5V DC power cord to the power jack of the transmitting unit HDM-C5-3X-S.

## 1.9 EDID Learning

To learn EDID from the monitor/TV following these steps

1. Turn on HDM-C5-3X-S.
2. Turn the Mode of HDM-C5-3X-S counterclockwise from 0 (for surround sound) or 1 (for stereo) to 7.
3. Use a HDMI cable to connect HDM-C5-3X-S & the display (better not connect to video source). The LED on the RJ-45 of HDM-C5-3X-S will dim and light again, which indicates the EDID learning process is finished.
4. Turn the Mode of HDM-C5-3X-S clockwise from 7 to 0 (for surround sound) or 1 (for stereo).
5. Connect HDM-C5-3X-S and the video source through a HDMI cable and enjoy the experience.

*DON NOT let the rotary arrow pass through 6 which will erase the EDID just learned and restore to default EDID.*



## 1.10 General Troubleshooting

| Problem               | Possible Solution                                                                                                                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Image              | <ul style="list-style-type: none"> <li>Check if connection to the source and the display are correct.</li> <li>Ensure that display device supports 480p, 720p and 1080p resolution</li> </ul>                                                     |
| Screen Defects Appear | <ul style="list-style-type: none"> <li>This product supports up to 1080p (1920x1200) resolution.</li> <li>Check the DVI and HDMI connection</li> <li>If outputting from a PC. Check the maximum resolution range of the graphics card.</li> </ul> |

## Section 2: Specifications

| Item                             | Description                                                                                                                                                   |                            |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Units                            | HDM-C5-3X-S                                                                                                                                                   | HDM-C5-3X-R                |
| Unit Description                 | HDMI 1.3a with 3D Transmitter                                                                                                                                 | HDMI 1.3a with 3D Receiver |
| HDMI Compliance                  | High Speed HDMI Deep Color & Full 3D Support                                                                                                                  |                            |
| HDCP Compliance                  | Yes                                                                                                                                                           |                            |
| Video Bandwidth                  | Single Link 225 MHz (6.75Gbps)                                                                                                                                |                            |
| Supported Resolutions            | 480i / 480p / 720p / 1080i / 1080p60                                                                                                                          |                            |
| Resolution and Distance (24-bit) | <b>Full HD:</b> (1080p) ~40meter (130feet) (CAT5e) / 50meter (165feet) (CAT6)<br><b>HD:</b> (720p/1080i)-50meter (165feet) (CAT5e) / 60meter (200feet) (CAT6) |                            |
| Audio Support                    | Surround Sound (up to 7.1 Ch) or Stereo Digital Audio                                                                                                         |                            |
| Equalization                     | -                                                                                                                                                             | 8 Level Digital Control    |
| Input TMDS Signal                | 1.2 Volts (peak-to-peak)                                                                                                                                      |                            |
| Input DDC Signal                 | 5 Volts (peak-to-peak, TTL)                                                                                                                                   |                            |
| ESD Protection                   | - Human body model — ±15kV (air-gap discharge) & ±8kV (contact discharge)<br>- Core chipset — ±8kV                                                            |                            |
| Input                            | 1 x HDMI                                                                                                                                                      | 1 x RJ45                   |
| Output                           | 1 x RJ45                                                                                                                                                      | 1 x HDMI                   |
| HDMI Connector                   | Type A (19 pin female)                                                                                                                                        |                            |
| RJ45 Connector                   | WE/SS 8P8C with 2 LED indicators                                                                                                                              |                            |
| Rotary Switch                    | Mode                                                                                                                                                          | EQ                         |
| Dimensions                       | 3.3" X 1.5" x 0.8" (L x W x H)                                                                                                                                |                            |
| Power Supply                     | Mini USB                                                                                                                                                      |                            |
| Power Consumption                | 1 Watt (max)                                                                                                                                                  |                            |
| <i>Environmental</i>             |                                                                                                                                                               |                            |
| Operating Temperature            | 32° ~ 104°F (0° to 40°C)                                                                                                                                      |                            |
| Storage Temperature              | -4° ~ 140°F (-20° ~ 60°C)                                                                                                                                     |                            |
| Relative Humidity                | 20~90% RH (no condensation)                                                                                                                                   |                            |



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